SUPREME COURT OF THE UNITED STATES.

No. 2, Original.—OCTOBER TERM, 1925.

The State of Arkansas, Complainant,
vs.
The State of Tennessee.

[November 16, 1925.]

Mr. Justice Butler delivered the opinion of the Court.

The commissioners, who were named by the decree entered June 10, 1918 (247 U. S. 461) and directed to run, locate and designate the boundary line between the States along the portion of the Mississippi River that was left dry as a result of the avulsion in 1876, filed their report, May 24, 1921. They correctly understood,-and counsel for the parties agreed with them.-that the directions contained in the decree applied to the two branches of the river as it formerly flowed,-the Devil's Elbow around Centennial Island and Island 37, and also the old river bed between Brandywine Island and the Tennessee shore. They found and recommended a line indicated by courses and distances set out in, and shown on a map attached to, their report. The defendant filed numerous exceptions which need not be quoted at length. The substance of its contentions is sufficiently indicated below.

Defendant asserts that the commissioners established the boundary line before its witnesses were heard and before cross examination of any witness for the plaintiff. But the record does not support the contention. In July, 1918, the commissioners examined the territory involved. In October, 1919, they took a survey party to the place to commence work. In 1920, they completed their surveys, including the line, then only provisional, which later was recommended in their report. The making of these surveys in advance of hearing the testimony was an appropriate step in the investigation. While the field work was in progress, the commissioners spent most of the time in the field, assisting, and examining the topography and comparing the evidence. Facts disclosed by

the survey and so gathered well might be deemed to be useful to enable the commissioners the better to understand and determine the value of other evidence. The report states that the commissioners spared no effort to secure maps and evidence indicating the course of the channel from the earliest record down to the time of the investigation. And that statement seems well supported. There is nothing to justify the suggestion that the commissioners established the line without considering the evidence.

Defendant insists that the middle of the main navigable channel as it existed before the avulsion could not be located with reasonable certainty and that the commissioners should have so reported (decree, par. 5). It maintains that the recommended boundary, except that portion between Island 37 and Arkansas, is based entirely on a reconnoissance made by Major Charles R. Suter, Corps of Engineers, United States Army, in 1874, and insists that the Suter line is not established by the evidence. Objection is also made to the location of the channel on the east side of Island 39, and to certain other parts of the commissioners' line.

The boundary line to be located is the middle of the main channel of the river as it existed in 1783 subject to subsequent changes occurring through natural and gradual processes. In 1823, the location of the river was substantially as indicated on a map, referred to in the record as Humphrey's map, and there has been no map or survey, which tied the channel to any fixed monument, showing the location of the river as of any later date. The eviden e shows that such channels are liable to change substantially from time to time. And the parties stipulated that from 1823 to 1876 the river and land lines had been altered as shown in the opinion of the Supreme Court of Tennessee in the case of State v. Pulp Co., 119 Term. 47, 59. The Humphrey map is on page 60 and the Suter map on page 32 of the opinion. The changes found to have taken place in this period seed not be specified. nothing to indicate that the 1823 map is useful as a guide to the boundary line as established by the interlocutory decree. reconnoissance of 1874 was made pursuant to an Ast of Congress approved June 23, 1874, c. 457, 18 Stat. 237, 242, providing for surveys and estimates for the improvement of certain transportation routes to the seaboard. Major Suter was assigned to make examination of the Mississippi River from Cairo to the Gulf. His party had a government steamboat and, in the performance of the work, passed over the part of the river here involved four times. The courses of the channel were taken by compass. Distances were determined by the speed of the boat. Widthsof the river were estimated, and to some extent these estimates were checked by triangulation. The purpose was to ascertain the appearance of the river and to get a general idea of the shape and location of the channel. No survey by actual measurements was made, and accuracy was not attained. From the evidence and a stipulation of the parties, the commissioners found that there had been no material change in the river between the time of the reconnoissance in 1874 and the avulsion in 1876. While not made according to actual measurements, the Suter map may be said to present the general situation as it existed immediately before the avulsion. The commissioners did not follow the map at all places and did not take it as their sole guide for the ascertainment of any part of the line. On satisfactory evidence that was not contradicted, the commissioners found that Island 37 was on the Tennessee side of the main channel as it existed in 1876, and not on the Arkansas side, as shown by the Suter map. The commissioners' also found that the United States township plats show that Island 39 at the foot of Brandywine was included in the public surveys of Arkansas, and that the old maps which were used as guides for the navigation of the river show that island very close to or against the Arkansas side. They report that they could not find any evidence to the contrary. And so they determined the main channel to have been on the easterly side of that island. As their conclusion is well sustained by the evidence it is immaterial whether, as stated in the report, Suter's map shows a line on each side of the island.

Counsel for the defendant asserts that, "A map, to be of any value for the purpose of locating any particular lines of objects thereon, must be based upon a survey accurately made by measurement and instrumental observations, and must be a faithful and correct delineation of a faithful survey, in every detail." And on that basis, he argues that the Suter map is valueless as a means accurately to fix the old channel, because not properly tied to some point or monument. But the standard demanded is not applicable. The thing to be done must be regarded. It is to locate the coundary along that portion of the bed of the river that was left dry as a result of the avulsion, according to the middle of the

main navigable channel at the time the current ceased to flow therein as a result of the avulsion. Absolute accuracy is not attainable. A degree of certainty that is reasonable as a practical matter, having regard to the circumstances, is all that is required. The line of the greatest depth of water is not necessarily the middle of the channel. *Minnesota* v. *Wisconsin*, 252 U. S. 273, 282. The location, limits and width of the main navigable channel were not precisely defined or permanent. The determination of its location involved more than mere measurements and required the exercise of judgment based on experience. The degree of accuracy insisted on is not reasonable or practicable.

Defendant's principal reliance is on opinions expressed by some of the witnesses to the effect that the line cannot be located with reasonable certainty. But such opinions are of little weight as against the facts shown and the determination of the commission. In addition to the commissioners' careful investigation in the field, there was the testimony of steamboat men and others who were familiar with the situation as it existed before the avulsion in 1876. It is sufficient to say that when taken in connection with the Suter map and considered in the light of established physical facts and other evidence, the testimony of these witnesses clearly establishes the line reported by the commissioners. The exceptions are without merit and are overruled. The report of the commissioners is confirmed.

Plaintiff paid the cost of printing the report and testimony, and moves that such cost be borne by defendant. The reasons stated by plaintiff are that defendant alone was dissatisfied with the report and, as a condition to excepting thereto, required plaintiff to pay for such printing, and that the exceptions are frivolous. We are of the opinion that the printing of the evidence was not necessary, and require defendant to bear the cost of that part of the printing. All other expenses, including the commissioners' compensation, will be divided equally between the parties.

The decree will be in accordance with this opinion. At any time within forty days the parties may submit suggestions as to form.

A true copy.

Test:

SUPREME COURT OF THE UNITED STATES.

No. 2, Original.—OCTOBER TERM, 1925.

The State of Arkansas, Complainant,

vs.

The State of Tennessee.

DECREE.

[June 7, 1926.]

Announced by Mr. Justice BUTLER.

The Court overrules the exceptions of the State of Tennessee to the report of the Boundary Commissioners, C. B. Bailey, Charles A. Barton, and Horace Van Deventer, appointed by interlocutory decree of June 10th, 1918, to run, locate and designate the boundary line between the States of Arkansas and Tennessee along that portion of the Mississippi River affected by the Centennial Cut-Off. The boundary line as established by the Commission is accepted, directed and established by the Court in conformity with the Report of the Boundary Commission, as follows:

mi	
Thence S. 73 W. 3,400' to	2
Thence west 1,000' to	3
Thence N. 80 W. 1,400' to	4
Thomas 4 0 0000 4	
Thence West 2,000° to	5
Thence S. 80 W. 1,200' to	6
From station 6 U. S. B. M. Thresher bears S. 74-08 W. 1,195. Thence from Station 6	
N. 58 W. 2,500' to Station	7
N. 47 W. 2,500' to	8
N. 13 W. 1,200 to	9
N. 16 east 9,300 to	10
N. 1 E. 3.015 to	11
N 20.20 F 1.400/ to	12
N 55-20 E 5 000' to	
N. 60 P. 9 0001	13
N. 60 E. 8,000' to	14

From	Station	14	Levee	Mile	Post	121-122	bears	N.	60-55	W.
861'.		***								

Thence	from	Statie	on 14
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		7,100'	to												0 0	0 0					911	9	9	9			0	9 9	Station	10
2.45	13						-	9	8					0					9										4.4	16
	E.	1,600'	to				3																				9		6.6	17
9-45	E.	1,200'	to																										4.6	18
0-45	E.	1,400'	to																								0		44	19
7-45	E.	1,500'	to																										6.6	20
7-45	E.	1,800	to																										4.6	21
																														22
9-06	E.	3,900'	to									9						9									٠		4.6	23
2	0-45 1-45 1-45 2-45	-45 E. -45 E. -45 E. -45 E.	0-45 E. 1,400′ (-45 E. 1,500′ (-45 E. 1,800′ (-45 E. 1,800′	0-45 E. 1,400' to 1-45 E. 1,500' to 1-45 E. 1,800' to 1-45 E. 1,800' to	0-45 E. 1,400′ to. 1-45 E. 1,500′ to. 1-45 E. 1,800′ to. 1-45 E. 1,800′ to.	0-45 E. 1,400′ to 1-45 E. 1,500′ to 1-45 E. 1,800′ to 1-45 E. 1,800′ to	7-45 E. 1,400′ to 7-45 E. 1,500′ to 7-45 E. 1,800′ to 7-45 E. 1,800′ to	0-45 E. 1,400' to 1-45 E. 1,500' to 1-45 E. 1,800' to 1-45 E. 1,800' to	0-45 E. 1,400' to	0-45 E. 1,400' to 1-45 E. 1,500' to 1-45 E. 1,800' to 1-45 E. 1,800' to	0-45 E. 1,400' to	0-45 E. 1,400′ to	0-45 E. 1,400' to	0-45 E. 1,400′ to	0-45 E. 1,400' to 1-45 E. 1,500' to 1-45 E. 1,800' to 1-45 E. 1,800' to	0-45 E. 1,400' to 1-45 E. 1,500' to 1-45 E. 1,800' to 1-45 E. 1,800' to	0-45 E. 1,400' to	7-45 E. 1,200 to												

From Station 23 Levee Mile Post 117-118 bears N. 57-05 W. 1,541'.

Thence from Station 23		
S. 76-30 E. 2,785' to	Station	24
S. 41-26 E. 4,751' to	4.6	25
S. 19-26 E. 881' to	66	26
South 1,430' to	4.6	27
S. 17 W. 4,000' to	4.6	28

From Station 28 the monument at the N. E. corner of the John Trigg 100-acre tract bears N. 78-30 W. 900 feet.

Thence from Station 28

S. 12 W. 4,000' to	Station	29
South 2,000' to		30
S. 15 E. 4,000' to	4.6	31
S. 40 E. 4,000' to	6.6	32 "A"
S. 45 W. 3,400' to	6.6	33 "A"

On the right bank of the Mississippi River.

Beginning on the left bank of the Mississippi River at Station 1 thence S. 5 E. 1,270', from which point U. S. B. M. 57-1 bears S. 60-07 E. 2,606 feet; thence continue on original line S. 5 E. 1,509' to Station 2.

S.	15	W.	3,000	to	Station	3
S.	37	W.	2,500	to	66	4
S.	42	Ŵ.	4,000	to	4.4	5

S.	37 W.	5,000	to	 	 	Station	6
S.	32 W.	3,900	to	 	 	4.4	7
S.	25-30	W. 1,0	00 to	 	 	4.6	8

On the left bank of the river.

A total length of boundary line of 116,641 feet, or 22.09 miles."

The foregoing is here and now made the boundary line between the two States parties hereto and the same shall be treated and fixed as the boundary line in question and the same shall be marked accordingy.

The costs certified by the Commissioners are approved and will accordingly be paid.

All costs, including the costs of printing the Report of the Commissioners, with maps filed with said Report to be determined by the Clerk and the compensation to the Commissioners to be fixed by the Court, shall be paid equally by the parties hereto—that is, each shall pay one-half, except the cost of printing the evidence and Supplemental Report of the Commissioners and exhibits, which will be paid by Tennessee.

It is so finally ordered, adjudged, and decreed by the Court.